

WIN!! AN EXPOSURE CD AND AMP COMBO WORTH £2,400



GAMUT
World-beating power amp



ARCAM
New British CD players

HI-FI CHOICE

PASSION FOR SOUND

WWW.HIFICHOICE.CO.UK | NOVEMBER 2003

SPECIAL OFFER!
FREE CABLE
WORTH £55!
SEE PAGE 87



KING KRELL



NOVEMBER 2003
£3.60
1 1
9 770955 111052
future
learning
Media with passion

A regal new amp from the world's most famous high-end brand



EXCLUSIVE IN-DEPTH TESTS

DREAM SPEAKERS

Fancy a Nautilus but can't afford the ticket? Meet the new **B&W** 703



SACD SENSATION

Latest audio player from **Marantz** puts the 'super' in Super Audio CD



ULTIMATE GROUP TEST SPEAKERS

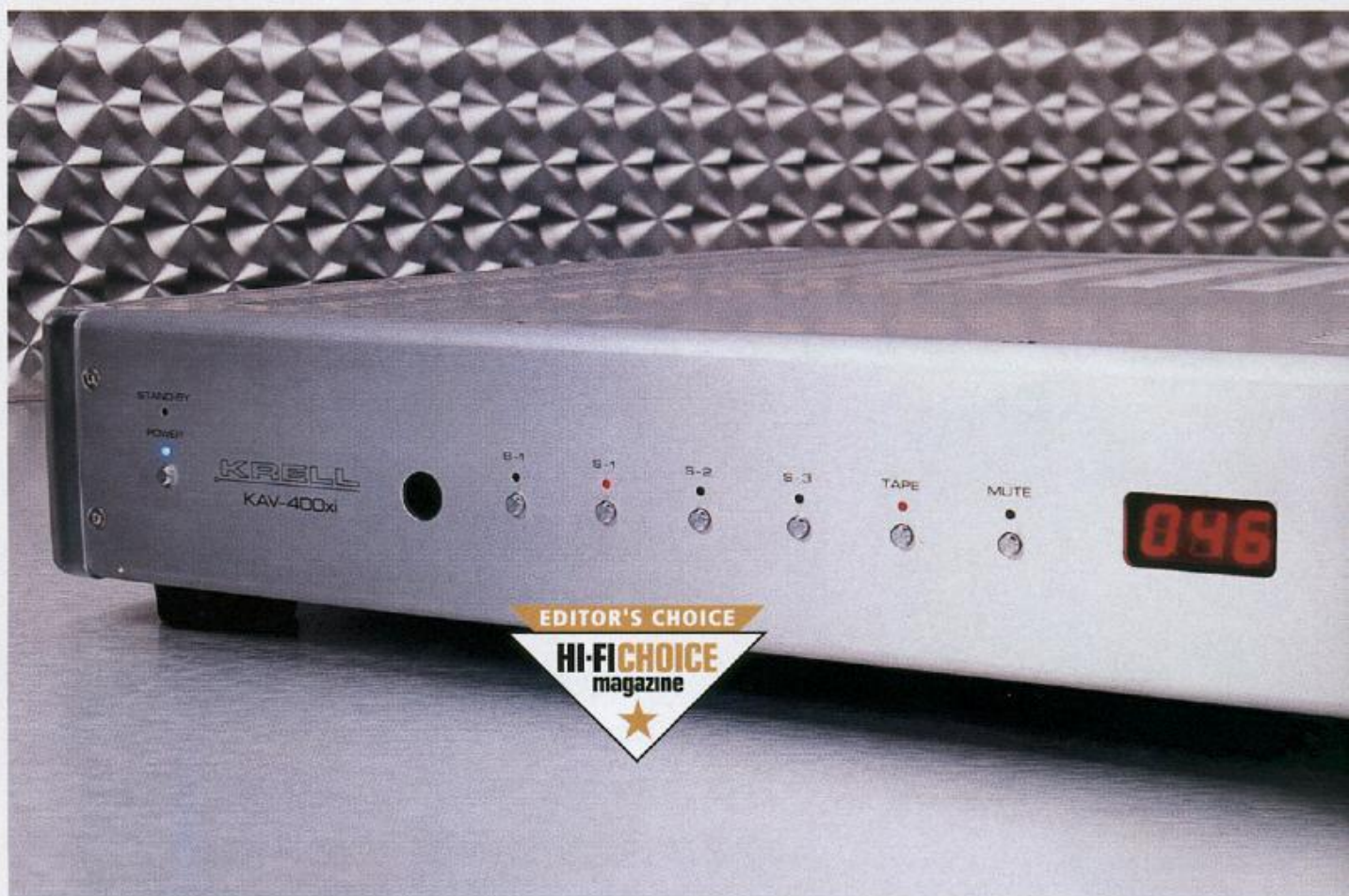
- FEATURING...
- > B&W Signature 805
 - > Living Voice Auditorium
 - > Canton Karat L800 DC
 - > Mirage OM7
 - > Graves Audio Koronglay
 - > Totem Forest
 - > Jamo D870
 - > Triangle Naia

IT'S A RECORD!
AVID'S SUPERB NEW ENTRY-LEVEL
TURNTABLE DIGS OUR GROOVE



+ BUYER'S BIBLE THE WORLD'S FINEST HI-FI BUYING GUIDE





FLAMING KRELL

Krell's powerful new stereo amp is the company's most advanced integrated design to date

PRODUCT Krell KAV400xi

TYPE Integrated stereo amplifier

PRICE £2,698

KEY FEATURES Size (WxHxD): 50x9x43cm • Weight 14.1kg • 200 watts/channel (8 ohms) • 4 single-ended inputs, 1 balanced input • remote control

CONTACT ☎ 020 8971 3909
 @ www.krellonline.com

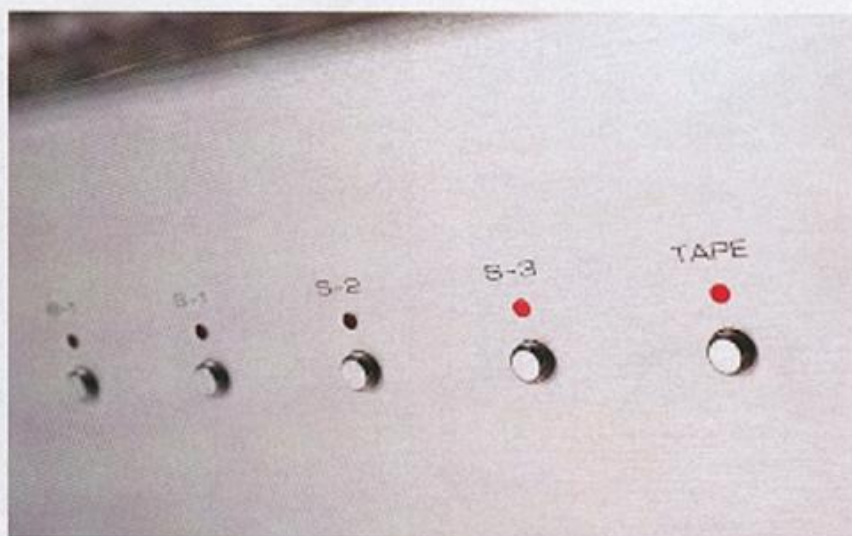
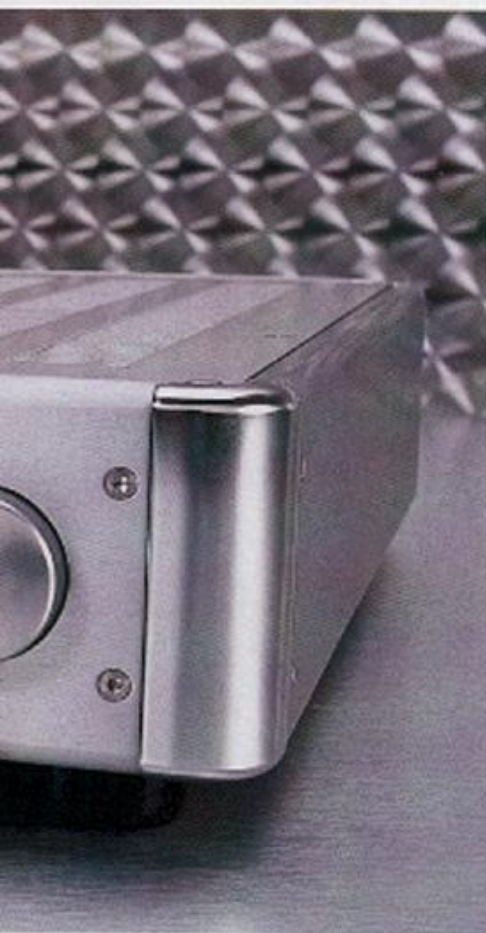


Krell has always been best known for its component pre and power amplifiers, but in 1995 expanded into integrated amp territory with the 150 watts per channel KAV300i. It made quite a stir, just as you would expect from an aspirational brand that introduces a relatively affordable product for the first time. The new KAV400xi is a linear development of that model, but with circuit improvements derived from the FPB series power amps. Power output is also up, to 200 watts per channel into eight ohms, and 400 watts into four ohms, the doubling in output implying that power supply limiting is not a factor. The massive 800VA toroidal (and it really is massive for such a svelte exterior design) transformer with separate supplies and discrete voltage regulators for the preamp, digital control and power amp stages, supported by a 55,000mF reservoir bank, shows the designer means business.

The KAV400xi looks very high-tech. No, let's not pussyfoot around – the KAV400xi looks absolutely drop dead gorgeous. With a finely engineered finish offset by capped, rounded

corners in polished alloy, the case is a variant of the design introduced with the Showcase range, but in a new slimline form factor which gives it a particularly elegant appearance. The controls feel good, the free-running encoded volume control in particular, and the amp is supplied with an ultra-slimline remote control powered by a lithium cell, which can control a CD player too.

Technically, the KAV400xi is an evolutionary advance over the previous model, but many of the ideas familiar from the previous practice are represented here in full measure. For example, the amplifier uses Krell's proprietary current mode topology internally, which involves current rather than voltage gain, which means impedance matching at each end of the circuit is easier to manage. The Krell is balanced from input to output except, by definition, in the case of the unbalanced in and outputs of course. There are four of the latter, all at line level and switched by sealed relays. The input includes a tape loop, and there is also a single balanced input on XLR connectors. Control is available over balance



and there's a mute option. There is even a 'Theatre Throughput' mode, which switches any chosen input to unity gain, so that when used in a multichannel system controlled by the Showcase processor (for example) the overall gain level is set by the processor.

Balanced interfaces are largely immune to RF pickup and in an amplifier where the internal circuits operate in true balanced mode this should be (and normally is) reflected in bolder, more detailed and more explicit sound. What is conspicuously lacking, however, is a facility to normalise the volume between inputs, which is important with any amplifier with mixed balanced and single-ended inputs due to the 6dB gain differential when balanced operation is implemented. Volume control is exercised by a precision resistor bank, but is controlled digitally, so there is no compelling reason why such a facility could not have been added without compromising sound quality. Another irritating factor here is the large volume sets at the bottom end of the volume range. A software revision could take care of this.

All internal circuits apart from the output and its associated pre-driver stage operate in Class A, with low negative feedback, and cover a wide bandwidth. 180kHz is mentioned in the literature ('suitable for SACD'), though the only properly qualified figure refers to a 20kHz frequency response within a very tight 0.07dB envelope. The 47kOhm input impedance is high enough for

“What you get is fast, fluid and powerful – just what you expect from the best Krell designs, and this is one of the best.”

any source components to operate without modification of their frequency responses, even over relatively long cable runs.

Other features include a preamp output for use in a bi-amplified system, or to bypass the internal power amp, and interfaces for custom install purposes. The latter includes an input for RC-5 baseband signals from an external infrared receiver, and a 12V I/O circuit which can either output a wake-up trigger signal, or respond to an external trigger.

SOUND QUALITY

Don't expect this amp to perform straight out of the box. It is quite normal to have to run an amplifier in, and not unusual to expect a half-hour or so each session before it delivers the goods. The Krell is much the same, but with bells on. For the first few days, it sounded clean, but rather mundane. The

break-in period however seems to help it lose its inhibitions as it flexes its muscles, and what you end up with is fast, fluid and powerful – just what you expect from the best Krell designs, and this is one of the best.

Once the initial burn-in period has elapsed, the new Krell baby is an absolute screamer. If it was a car it would be an Alfa Romeo – not without character, but with lightning speed and resolution. The big difference is that the Krell is not Italian, and it won't start shedding body parts, or throwing pistons. It is much too well screwed together. Unlike some amps, it won't throw a wobbly into challenging loudspeaker loads either: it is even difficult to think of systems that it won't suit. True, it doesn't sound very valve-like, so if that's your thing you should probably look elsewhere. At the same time, the Krell is not grainy, harsh or in any other way obviously solid state, at



Q & A



Dan D'Agostino, founder, chief executive officer and chief engineer of Krell Industries Inc, talks about and around the KAV400xi

HFC: Can you explain what job the 400xi was intended to do, and how it is being received by the market?

DD'A: It is a wide application device. The 400xi was originally intended to be a starter design which could also be used as an adjunct for those with systems based on our bigger amplifiers in another room. But it is certainly not noticeably limited in what it can do. Power output doubles into four ohms, the output stage is robust and the amplifier is inherently very stable. It is more than capable of driving big, power-hungry speakers.

Looking inside the amplifier, there hardly seems room for the power supply reservoir capacitors, but the transformer has a very high rating.

How would you describe the key elements of the power supply?

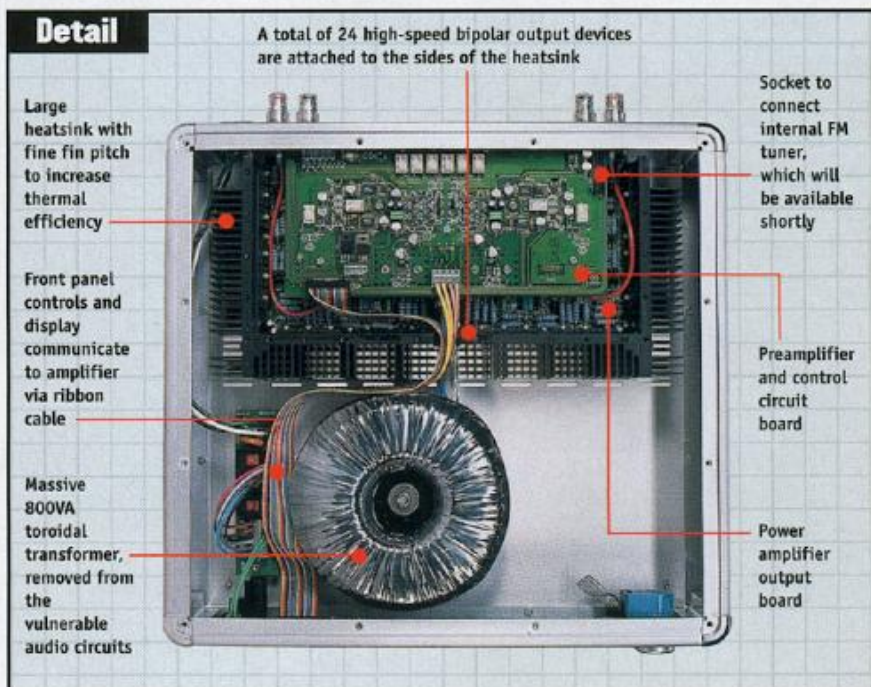
This is the way to produce the kind of amplifier we want to make. We've been reducing the size of the capacitors in our amplifiers over the years, and it's true that the reservoir has quite a low rating. The type of circuitry we design doesn't need large reservoirs, and for speed we don't want it anyway. We found that if you have an adequate power supply and good regulation, a large reservoir causes slew-induced distortion, and this is not our style.

How has the amplifier been voiced?

It's simple enough. We voiced the 400xi to sound as much like the FPB series power amplifiers as possible. We wanted it to be fast, detailed and solid, and also to be as independent of the speaker load as possible.

We have all been hearing about the poor state of the consumer market for hi-fi over the last two years. Are there any signs of recovery?

The area of the market we operate in is becoming very strong in the US. We noticed our domestic market started to pick up around June. In the last couple of months there has been some upturn in export markets too, but recovery abroad appears to be slower than in the US.



At least it isn't once the warming-up ritual has been observed. It needs more than the usual period under power before each listening session before it gets its act fully into gear, and it runs quite hot when it has been on for a while.

Nevertheless, some speakers are going to prove more obvious partners than others. It worked particularly well with a pair of the new two-metre £20,000 Triangle Magellans. In one way this is no surprise. Large speakers tend to be relatively sensitive, and this is certainly the case here. But extended bandwidth operation brings its own problems, as can speaker balance, and the Magellan certainly has a potential balance problem. With the wrong amp in charge it can sound aggressive and 'in your face', and while the temptation is to smooth it out using valves, or simply a relatively soft-sounding amplifier, that turns out to be precisely the wrong approach to take.

The Magellan is a fabulously detailed performer, and what it really needs is an amplifier which combines clarity with control to make the most of its assets, rather than one that minimises its weaknesses. Combining clarity with control is virtually a three-word encapsulation of the KAV400xi, and this combination sings. It does not sound aggressive, even when listening on the tweeter axis, but the resolving power of the speaker is fully exploited for musical effect.

The bass is also well integrated, lacking a slight tendency to boxiness that can appear through other combinations.

But the words 'bass' and 'Krell' are, and always have been practically synonymous. A Krell that doesn't do bass is simply unthinkable. In the end, the bass is of more than just passing interest. Bass control and driving ability do more for reproduced sound than just tacking on a few notes at the bottom when you're playing Massive Attack or Bach Chorales. The bass is an integral part of the sound as a whole adding colour, depth and space to the illusion, and these are the qualities the Krell possesses in abundance. Even when the bass is not particularly obvious in its own right, as when playing female vocal material or a string quartet, say, the wide tonal colour palate remains, and so does the sense of space, light and depth. The long and the short of it is that this is an amplifier that knows how to sing. **HFC**

Alvin Gold



VERDICT

SOUND >> 93%

FEATURES >> 83%

BUILD >> 95%

VALUE >> 89%

CONCLUSION
The sound is fast, tuneful and detailed, and remains so out to the frequency extremes – the bass is particularly impressive. More than this, here is an amplifier with real brio, which is entirely suited to wide bandwidth, high-resolution systems.

PRO
A champion that performs well above its weight, the KAV400xi sets an impressive marker for its rivals.

CON
Width could embarrass some racks and equipment supports, and the absence of input normalisation will result in a big volume step between unbalanced and balanced input selection.

HI-FI CHOICE OVERALL SCORE >> 91%